



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

**[Docket No. FAA-2013-0555; Directorate Identifier 2010-SW-047-AD;
Amendment 39-17779; AD 2014-05-06]**

RIN 2120-AA64

Airworthiness Directives; Eurocopter Deutschland GmbH Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for Eurocopter Deutschland GmbH (ECD) Model EC135 and MBB-BK 117 C-2 helicopters. This AD requires inspecting the flight-control bearings repetitively, replacing any loose bearing with an airworthy flight-control bearing, and installing bushings and washers. This AD was prompted by the discovery during a routine inspection of loose flight control bearings because of incorrect installation. The actions of this AD are intended to prevent the affected control lever from shifting, contacting the helicopter structure, and reducing control of the helicopter.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain documents listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this AD, contact American Eurocopter Corporation, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <http://www.eurocopter.com/techpub>. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the European Aviation Safety Agency (EASA) AD, any incorporated-by-reference service information, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (phone: 800-647-5527) is U.S. Department of Transportation, Docket Operations Office, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Matt Fuller, Senior Aviation Safety Engineer, Safety Management Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, TX 76137; telephone (817) 222-5110; email matthew.fuller@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

On July 3, 2013, at 78 FR 40047, the Federal Register published our notice of proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 to add an AD that would apply to ECD Model EC135 P1, P2, P2+, T1, T2, and T2+ helicopters, serial

number (S/N) 0005 through 00829, with a tail rotor control lever, part number (P/N) L672M2802205 or L672M1012212; cyclic control lever, P/N L671M1005250; collective control lever assembly, P/N L671M2020108; or collective control plate, P/N L671M5040207; installed. The NRPM proposed that the AD also would apply to Model MBB-BK 117 C-2 helicopters, S/N 9004 through 9310, with a tail rotor control lever assembly, P/N B672M1007101 or B672M1807101; tail rotor control lever, P/N B672M1002202 or L672M2802205; or lateral control lever assembly, P/N B670M1008101, installed.

The NPRM proposed to require inspecting the flight-control bearings repetitively, replacing any loose bearing with an airworthy flight-control bearing, and installing bushings and washers. The proposed requirements were intended to prevent the affected control lever from shifting, contacting the helicopter structure, and reducing control of the helicopter.

The NPRM was prompted by AD No. 2010-0058, dated March 30, 2010, issued by EASA, which is the Technical Agent for the Member States of the European Union. EASA issued the AD to correct an unsafe condition for the ECD Model MBB-BK 117 C-2, EC 135 and EC 635 helicopters. EASA advises that during an inspection of an MBB-BK 117 C-2, “bearings were detected which had not been correctly fixed.” As some bearings on the EC 135 and MBB-BK 117 C-2 type designs are installed with the same procedure, they are equally affected by the possibility of the unsafe condition. EASA states that this condition, if not corrected, could result in the affected control lever shifting in the axial direction, contacting the helicopter structure, and subsequently reducing control of the helicopter.

Comments

We gave the public the opportunity to participate in developing this AD, but we received no comments on the NPRM (78 FR 40047, July 3, 2013).

FAA's Determination

These helicopters have been approved by the aviation authority of the Federal Republic of Germany and are approved for operation in the United States. Pursuant to our bilateral agreement with Germany, EASA, its technical representative, has notified us of the unsafe condition described in its AD. We are issuing this AD because we evaluated all information provided by EASA and determined the unsafe condition exists and is likely to exist or develop on other helicopters of these same type designs and that air safety and the public interest require adopting the AD requirements as proposed.

Differences Between this AD and the EASA AD

Differences between this AD and the EASA AD are:

- The EASA AD is applicable to the EC 635 helicopter, whereas this AD is not because the EC 635 helicopter is not type certificated in the U.S.
- The EASA AD requires an initial inspection within 50 flight hours or one month, whichever occurs first after May 31, 2008, and a modification within the next 12 months. This AD requires the modification within 100 hours TIS or at the next annual inspection, whichever occurs first, and no inspection until after the modification has been accomplished.

Related Service Information

Eurocopter has issued Alert Service Bulletin (ASB) MBB BK117 C-2-67A-010, Revision 3, dated February 8, 2010, and ASB EC135-67A-019, Revision 3, dated December 16, 2009. These ASBs specify:

- Within the next 50 flight hours (FHs), inspecting the affected bearings and, if necessary, rebonding any affected bearings or replacing the lever assembly.
- Within 12 months, retrofitting bushings on the levers to prevent movement of the bearings.
- After the retrofit, repeating the inspection every 800 FHs or 36 months for the Model EC 135 helicopters, whichever comes first, and 600 FHs or 24 months, whichever comes first, for the Model MBB-BK 117 C-2 helicopters.

EASA classified these ASBs as mandatory and issued AD 2010-0058 to ensure the continued airworthiness of these helicopters.

Costs of Compliance

We estimate that this AD affects 175 Model EC135 and 112 Model MBB-BK 117 C-2 helicopters of U.S. Registry and that labor costs average \$85 per work-hour. Based on these estimates, we expect the following costs:

- For EC135 helicopters, it takes about 32 work-hours to perform the modification. Parts cost about \$312. The total cost for the modification is about \$3,032 per helicopter and \$530,600 for the U.S. operator fleet. The repetitive inspections require 6.5 work-hours for a cost of about \$553 per helicopter and about \$96,775 for the fleet per inspection cycle.

- For MBB-BK 117 C-2 helicopters, it takes about 32 work-hours to perform the modification. Parts cost about \$396. The total cost for the modification is \$3,116 per helicopter and \$348,992 for the U.S. operator fleet. The cost for the repetitive inspections thereafter is about \$85 per helicopter and \$9,520 for the fleet per inspection cycle.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: “General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on helicopters identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

(1) Is not a “significant regulatory action” under Executive Order 12866;

(2) Is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);

(3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2014-05-06 **Eurocopter Deutschland GmbH**: Amendment 39-17779; Docket No. FAA-2013-0555; Directorate Identifier 2010-SW-047-AD.

(a) Applicability

This AD applies to the following helicopters, certificated in any category:

(1) Eurocopter Deutschland GmbH (ECD) Model EC135 P1, P2, P2+, T1, T2, and T2+ helicopters, serial number (S/N) 0005 through 00829, with a tail rotor control lever, part number (P/N) L672M2802205 or L672M1012212; cyclic control lever, P/N L671M1005250; collective control lever assembly, P/N L671M2020108; or collective control plate, P/N L671M5040207; installed; and

(2) Model MBB-BK 117 C-2 helicopters, S/N 9004 through 9310, with a tail rotor control lever assembly, P/N B672M1007101 or B672M1807101; tail rotor control lever, P/N B672M1002202 or L672M2802205; or lateral control lever assembly, P/N B670M1008101, installed.

(b) Unsafe Condition

This AD defines the unsafe condition as incorrectly installed flight control bearings. This condition could cause the affected control lever to shift and contact the helicopter structure, resulting in reduced control of the helicopter.

(c) Effective Date

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(d) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(e) Required Actions

(1) For Model EC135 P1, P2, P2+, T1, T2, and T2+ helicopters:

(i) Within the next 100 hours time-in-service (TIS) or at the next annual inspection, whichever occurs, modify the left-hand (LH) and right-hand (RH) guidance

units and the cyclic shaft by installing bushings and washers to prevent shifting of the bearings in the axial direction as follows:

(A) Remove and disassemble the LH guidance unit and install a bushing, P/N L672M1012260, between the bearing block and the lever of the LH guidance unit as depicted in Detail A of Figure 5 of Eurocopter Alert Service Bulletin EC135-67A-019, Revision 3, dated December 16, 2009 (EC135 ASB).

(B) For helicopters without a yaw brake, remove and disassemble the RH guidance unit and install a bushing, P/N L672M1012260, between the bearing block and the lever as depicted in Detail B of Figure 5 of EC135 ASB.

(C) Remove and disassemble the cyclic shaft and install a washer, P/N L671M1005260, between the bearing block and the lever as depicted in Detail C of Figure 6 of EC135 ASB.

(D) Remove the collective control rod from the bellcrank and install a washer, P/N L221M1042208, on each side of the collective control rod and bellcrank as depicted in Detail D of Figure 6 of EC135 ASB.

(E) At intervals not to exceed 800 hours TIS or 36 months, whichever occurs first, inspect the bearings in the LH guidance unit, RH guidance unit, cyclic control, upper guidance unit, and linear voltage differential transducer plate for play. If any bearing is loose, replace the affected bearing with an airworthy bearing.

(2) For Model MBB-BK 117 C-2 helicopters:

(i) Within the next 100 hours TIS or at the next annual inspection, whichever occurs first, modify the LH and RH guidance units and the lateral control lever by

installing bushings and washers to prevent shifting of the bearings in the axial direction as follows:

(A) Remove and disassemble the RH guidance unit and install a bushing, P/N L672M1012260, between the lever and the bracket as depicted in Detail B of Figure 4 of Eurocopter Alert Service Bulletin MBB BK117 C-2-67A-010, Revision 3, dated February 8, 2010 (BK117 ASB). Remove and disassemble the LH guidance unit and install a bushing, P/N L672M1012260, between the lever and the bracket as depicted in Detail C of Figure 4 of BK117 ASB.

(B) Remove the lateral control lever and install new bushings in accordance with the Accomplishment Instructions, paragraphs 3.C(9)(a) through 3.C(9)(g), of BK 117 ASB.

(C) Identify the modified lever assembly by writing “MBB BK117 C-2-67A-010” on the lever with permanent marking pen and protect with a single layer of lacquer (CM 421 or equivalent).

(D) Apply corrosion preventive paste (CM 518 or equivalent) on the shank of the screws and install airworthy parts as depicted in Figure 5 of BK117 ASB.

(E) At intervals not to exceed 600 hours TIS or 24 months, whichever occurs first, inspect the bearings in the RH guidance unit, LH guidance unit, and lateral control guidance unit for play. If any bearing is loose, replace the affected bearing with an airworthy bearing.

(f) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Matt Fuller, Senior Aviation Safety Engineer, Safety

Management Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, TX 76137; telephone (817) 222-5110; email matthew.fuller@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

(g) Additional Information

The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2010-0058, dated March 30, 2010. You may view the EASA AD on the Internet at <http://www.regulations.gov> in Docket No. FAA-2013-0555.

(h) Subject

Joint Aircraft Service Component (JASC) Code: 6710, Main Rotor Control.

(i) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Eurocopter Alert Service Bulletin EC135-67A-019, Revision 3, dated December 16, 2009.

(ii) Eurocopter Alert Service Bulletin MBB BK117 C-2-67A-010, Revision 3, dated February 8, 2010.

(3) For Eurocopter service information identified in this AD, contact American Eurocopter Corporation, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <http://www.eurocopter.com/techpub>.

(4) You may view this service information at FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Fort Worth, Texas, on February 20, 2014.

Lance T. Gant,

Acting Directorate Manager, Rotorcraft Directorate,
Aircraft Certification Service.

[FR Doc. 2014-04589 Filed 03/07/2014 at 8:45 am; Publication Date: 03/10/2014]